REMARKS

The Examiner has required restriction between the following species: (A) gene expression and nucleic acid expression, as in claim 15 and 17; (B) protein expression as in claim 16; (C) chromatographic profile, as in claim 39, (D) seismic activity, as in claim 40, (E) economic information, as in claim 41, and (F) thermal gravimetric information, as in claim 42. The Office Action states that the species are distinct because the species are not obvious variants of each other based on the current record. Each species allegedly represents a distinct characteristic of the samples and requires distinct methods and procedures to measure. Applicant respectfully traverses the requirement. According to MPEP § 803:

If the search and examination of an entire application can be made without serious burden, the examiner <u>must</u> examine it on the merits, even though it includes claims to independent or distinct inventions. (emphasis added).

A serious burden on the Examiner allowing for insistence upon restriction of related inventions as claimed may be *prima facie* demonstrated if the Examiner shows by appropriate explanation either separate classification, separate status in the art, or a different field of search for the different groups of claims. *See*, MPEP §§ 803 and 808.02. Applicant respectfully submits that a search of multiple species would not place a serious burden on the Examiner and request at least partial rejoinder of Species A, B, and C. As stated in the MPEP § 808.01(a),

Where there is a relationship disclosed between species, such disclosed relation must be discussed and reasons advanced leading to the conclusion that the disclosed relation does not prevent restriction, in order to establish the propriety of restriction.

A relationship between Species A, B, and C has been disclosed in the specification, but the Office has not provided reasons why, in spite of this relationship, restriction should be imposed. These species represent similar types of experimental tools, and the data derived from such methods are closely related, indicative of the chemical or biological properties of the sample. As explained in the specification,

Data derived from the systems ... may be displayed as an experimental curve by assigning the data points within each matrix a rank that corresponds to the magnitude, quantity, or

quality of the data value for that data point. For the sake of simplicity, the phase "signal intensity" will be used to refer to the value of a given data point of any type. (Specification, paragraph [0019]).

The "magnitude, quantity, or quality of the data value" for nucleic acid expression, protein expression, and chromatographic profiles is meant to reflect the chemical or biological properties of the sample, *e.g.*, a chemical reaction or a binding interaction or other similar interactions known to those of skill in the art (see Specification, paragraph [0022]). The only difference between each of species A, B, and C is that the measured properties are obtained using different experimental methods. The instant claims do not recite or specify how the experiments are conducted or how the properties are measured. The methods only depend on data points having an intensity value corresponding to the measured property of the sample, regardless of how the sample is measured. As such, a search of species A, B, and C will not prove a great burden for the Examiner.

CONCLUSION

For the foregoing reasons, it is respectfully submitted that the species enumerated above may be examined together without placing a serious burden on the Examiner, and that the reasons given by the Office for insisting upon restriction of the species have been overcome by the remarks contained herein. Applicants respectfully request at least partial rejoinder of species A, B, and C for examination in this application.

Although Applicant believes that no fee is required for this Response, the Commissioner is hereby authorized to charge any additional fees which may be required for this Request to Deposit Account No. 19-0741.

Respectfully submitted,

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